March 17, 2004

MODIS sensor Working Group (MsWG) Summary

Attendance: Vincent Chiang, Catherine Corlan, Gene Eplee, Bob Evans, Shaida Johnston, Gerhard Meister, Chris Moeller, Vince Salomonson, Junqiang Sun, Gary Toller, Jack Xiong, Zhengming Wan, Joe Esposito

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Scheduled Items

Item 1 Instrument Status (JX)

Terra and Aqua MODIS have been operating normally

Aqua adjustment maneuver was cancelled last week. It has been rescheduled on March 31, near our next lunar viewing. The impact of the adjustment on the lunar view scheduling is being looked at.

Item 2 MCST Issues (JX)

Calibration and Characterization Activities

Calibrations have been preformed at normal intervals

L1B and LUTs related

JX) MCST has been working with the Ocean Team at GSFC (SeaWiFs Team). An updated set of Aqua LUTs with smoothed m_1s has been delivered to the Ocean Team. Miami would like the new LUTs.

BE) Miami will run data with the new LUTs offline.

JX) LUT values have changed slightly due to the addition of more data (new best smoothing fit).

Science Support

JX) Issues I have been looking at include: scattering, polarization, and near field response. The Out-of-Band RSR for Aqua merged RSR is created from patching InBand and OOB RSR. Smoothing is required to prevent jumps.

GT) Alice Isaacman is leaving MCST to a new company. James Kuyper, the L1A lead, will replace Alice and become the L1 lead (L1A and L1B).

Around the Table

Participant: Vince Salomonson – Waiting for the final Ocean Color Review report. Have seen a draft. There will be a telecon for the Science Team on March 29, 2004 planning for the next MST meeting, etc.

Participant: Gary Toller – Upcoming L1B code revision is being made to accommodate the Ocean team's subsetted L1A files.

Participant: Chris Moeller – Have looked at more Aqua granules in Date Range 2003300-2003350 to understand better the relation between changes in B26-D7 (product order). Profiles along the track direction have been used to look for problems with D7. The variation is within the noise implying no impact. Therefore, no special processing is needed for this date range (2003250-2003300).

Participant: Zhengming Wan – Planning an expedition to validate Aqua but need to wait for permission to use funding.

CM) Is the expedition dependent upon data from the ER2 aircraft? If so, we should coordinate our flights. Our window is good for Terra over flights but not for Aqua.

Participant: Jack Xiong – Terra MS difference issue.

JX) The SD screen down/SD door open causes faster degradation which impacted not only the m_1 LUT but also RVS. New LUTs including RVS should be delivered for future re-processing.

BE) The change we see is due to the RVS. When will a smooth RVS LUT be available?

JX) Due to a three month period when no lunar calibrations could be done, we missed seeing an RVS change sooner. For re-processing we can give a "best" smoothed RVS. RVS for forward processing is always going to be behind.

BE) Can an updated "best" RVS LUT be created for the 2003330-2004001 Date Range.

JX) We can generate this RVS LUT but it can only be used for offline analysis and will not be delivered to the DAAC unless a re-processing is needed (*MCST Action: create and send new RVS and m_1 LUT to Miami)*.

BE) Peter Minette is leaving New Zealand to Antarctic. He will be getting some ocean color data.

GM) We are producing Aqua time series. SeaWiFs is using two polarization tables, the regular table and one with 90° rotation.

BE) When using the regular table for Terra the MS difference begins to get larger at a solar zenith of 40°. MS imbalance increases thereafter with increasing solar zenith. The 90° rotated table yields a higher solar zenith for the MS imbalance to begin to get large (~10°-15° higher). The appropriate starting offset is an open question.

VS) How do you know which angle is best?

GM) We take the subsequent time series of MODIS from normal and +90° and compare to SeaWiFs results.

JX) I have been working with Jim Young of SBRS by looking into older polarization data and documents. During the measurements, care must be taken with the absolute zero of the instrumentation. Power on/off can cause changes in the zero offset position during the test.

Next MsWG meeting on March 31,2004

Compiled by J. A. Esposito March 17, 2004